

TESTING

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Overview

- Definitions
- Test Activities
- Block IV Major Test Events
- TEMP Schedule
- Support to External Tests
- Challenges

Definitions

- Major Release (Del 3, Blk IV, CP1)
 - New Mission Application Functionality
 - Significant Changes to Layer2 or Layer 3 Software Infrastructure
 - Formal Testing Req'd
- Minor Release (D.3.2.5.1, CP1.20)
 - System Enhancements and/or Maintenance SCRs
 - May Includes New or Modified System/SW Requirements
 - Formal Testing Req'd

Definitions (cont)

- Maintenance Release (D3.2.5.1P1)
 - Maintenance SCRs Only - no new requirements
 - Formal Testing Req'd
- Engineering Release (D3.2.5.1e1)
 - Snapshot of a developing baseline -
 - NO Formal Testing

Definitions (cont)

- Formal Test
 - Conducted on a CM-controlled configuration;
 - Using documented test procedures;
 - Requires Gov't Witness
- The Development Team Conducts Non-Formal Testing
- The Integration and Test Team Conducts Formal Testing

In-Plant Test Activities

Test Activity	Major Release	Minor Release	Maint Release	Eng. Release	Dx	CP2	Performing Org / Supporting Org.
Non-Formal Testing							
Unit Test	✓	✓	✓	✓	✓	✓	Software/ Test
Dev/Int	✓	✓	✓	✓	✓		Software/ Test
Software Integration Test (SWIT)	✓	✓	✓	✓	✓	✓	Software/ Test
Formal Testing							
Segment Verification							
Requirements Verification	✓	A/R			A/R		Test/ SE/ Software
Segment Regression Test	✓	✓	A/R		A/R		Test/ SE/ Software
SCR Verification	✓	✓	✓		✓	✓	Test/ Software
System Regression Test	✓	A/R	A/R		A/R		Test/ Software
Delivery Verification	✓	✓	A/R		A/R		Test/ Software
FQT (Major Release only)	✓				✓	✓	Test/ SE/Software
I&T (Major Release only)	✓				✓	✓	Test/ SE/ Software

A/R = As Required

Site Test

- Major Releases
- Conducted at a User Site
- ATEC Participation and oversight
- Includes Interoperability Testing as required
- Results in System Of Record (SOR) determination

SUPPORT TO EXTERNAL TESTS

- Events since last review:
 - FT4
 - DCX II
 - TBMCS 1.1
- Current and Future Events
 - MC02
 - FT5
 - MCS IOTE
 - MCS TCO
 - JOPES 21
 - TBMCS

BLOCK IV MAJOR TEST EVENTS

- Formal Qualification Test (FQT)
 - Conducted at contractor facility
 - Contractor conducts, government witnesses
- Integration and Test (I&T)
 - Conducted at contractor facility
 - Conducted by Government (site) personnel
- Site Test (ST)/Operational Assessment
 - Conducted by Government (ATEC)

CHALLENGES

- SCR Workload
- Staffing of TEMP for Block IV
- Exercise & Fielding Support